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Comments concerning Ostrich *Struthio camelus* populations in Kenya

The Ostrich *Struthio camelus* is currently regarded as comprising four subspecies largely confined to sub-Saharan Africa. This distribution is disrupted by a belt of miombo woodland in south-central Africa that effectively divides the species into northern and southern populations with the former incorporating *S. c. camelus*, *S. c. molybdophanes* and *S. c. masaicus*, while *S. c. australis* is confined to southern Africa (Freitag & Robinson 1993).

Molecular work based on mitochondrial DNA has revealed that *molybdophanes* appears to have diverged from the common ancestor to the other three subspecies approximately 3.6 to 4.1 million years ago (Freitag & Robinson 1993). This, coupled with morphological and ecological differences, in addition to reported interbreeding difficulties, suggests that separate species status may possibly be warranted for *molybdophanes* (Zimmerman *et al.* 1996). However, without conclusive evidence, opinions are divided, and so it remains the most distinct of the four subspecies.

Given that the three forms of the northern population occur in Kenya, a closer look at their status and distribution is worthwhile. *S. c. massaicus* extends from central and northern Tanzania north to the Masai Mara National Reserve, Amboseli, Nairobi and Tsavo West National Parks and along the main

Mombasa-Nairobi road and railway line. *S. c. molybdophanes* ranges widely throughout much of northern and northeastern Kenya (east of Lake Turkana), south through Samburu, Buffalo Springs and Shaba National Reserves, to Meru and Tsavo East National Parks and the same railway line. *S. c. camelus* is confined to extreme northwestern areas astride the Sudan border. Meanwhile a largely disjunct population of what is considered *S. c. massaicus* occurs in an area of central Kenya from Naro Moru, Timau, and the Laikipia Plateau west to Baringo and Maralal Districts. Occasional sightings from below the Kongelai Escarpment (north of Kitale) have never been satisfactorily racially assigned. At the same time, atypical males (without the white neck ring) in Nairobi National Park may reflect some interbreeding between *massaicus* and *molybdophanes*, following the disastrous introduction of the latter in that park in the early 1970's.

The impact of early ostrich farming in Kenya following its success in South Africa at the turn of the last century is also noteworthy. By 1909, Kenya's domesticated ostrich population numbered several thousand, with approximately 40% of the settler farmers at that time "running ostriches". Successful ostrich farms were operating on the Athi-Kapiti plains as well as at Molo and in other parts of the Rift Valley. The stock, acquired locally as well as imported (initially from Egypt and later from German East Africa), may well have 'contaminated' the genetic purity of modern wild stocks in the Kenya highlands (Parker 1992). Similarly in South Africa, importations of birds from North Africa ostensibly to improve the feather quality of domesticated birds had raised fears about such widespread introgression to the point where several conservation agencies expressed concern about the genetic integrity of the southern African *australis* (Freitag & Robinson 1993). As such, some Kenyan ostrich populations, particularly in some Rift Valley areas may include in their ancestry birds representing extralimital subspecies that were part of the extensive stocks of domesticated birds released following the collapse of the early ostrich farming operations (Zimmerman *et al.* 1996). Such genetic contamination and introgression could threaten the genetic integrity of the natural (wild) populations as has been shown in plants (Whelan *et al.* 2006), fish (Gausen & Moen 1991, Roberge *et al.* 2008) and birds (Peterson & Brisbin 1999), resulting in problems such as reduced breeding success.

Today almost a century after the first ostrich farming boom, another is re-emerging not only in sub-Saharan Africa but also in Europe, North and South America and Australia. As a result, ostrich farming is now open to international competition, and with the attendant legal and illegal export of both eggs and live birds to all corners of the world, we may soon see the emergence of a new breeding stock of ostrich. Ostrich products are already popular: advanced tanning techniques have ensured that the ostrich has a place among the world's most luxurious leathers, while the demand for its low-cholesterol meat is growing in Europe, North America and Japan. It is likely that should demand outstrip supply, pressures will mount on all existing wild populations in Africa.

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Comments concerning the status of the White-bellied Bustard race *Eupodotis senegalensis erlangeri*

Much confusion has existed concerning the status of the *Eupodotis senegalensis erlangeri* race of the White-bellied Bustard, originally named by Reichenow (1905) in his *Die Vogel Afrikas*, and its subsequent treatment by later authorities.

Erlanger (1905) concluded that there were two distinct races of *E. Canicollis*: a northern rufescent one, and a southern paler form. He considered the type of *canicollis* from Bardera, Juba River, southern Somalia as the southern bird, and named the northern one *Otis canicollis somaliensis* from Gallaland (actually near Harrar, Ethiopia). Shortly afterwards Reichenow (1905) utterly confused the issue by mistaking Bardera in South Somalia for Berbera in North Somalia. He felt the type of *canicollis* (from Bardera) was in fact the northern form and therefore Erlanger's *somaliensis* was simply a synonym. He then named southern birds *erlangeri* as occurring from Machakos to Iringa in Kenya, probably after seeing specimens collected by Sir Frederick Jackson from Machakos, as well as others from Tanganyika collected by various fellow German collectors. Neumann (1907) corrected Reichenow's error and showed that *erlangeri* was no more than a synonym of *canicollis*, while Erlanger's *somaliensis* was indeed distinct. Zedlitz (1914), Sclater (1924) and Friedmann (1930) subsequently confirmed this arrangement. Later however, Grant & Mackworth-Praed (1935) re-muddied the waters by concluding (wrongly) that *canicollis* and Erlanger's *somaliensis* were indistinguishable, while birds from southwestern Kenya and central Tanganyika were darker and less tawny, and so attributed these as *erlangeri*. While this arrangement was not